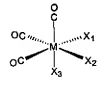
This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the Claims:

1-33. (Cancelled)

34. (Currently Amended) A method for the treatment of a cancer, the method comprising:

administering to a patient afflicted with the cancer a metal tricarbonyl compound of the general formula:



wherein

M is rhenium or technetium or an isotope thereof;

at least two of X1, X2 and X3 are monodentate ligands **selected from the group consisting of CO, NH_3, aromatic heterocycles, thioethers and isocyanides**; or

two of X1, X2 and X3 are part of a bidentate ligand and the other one is ~~optionally~~ a monodentate ligand **selected from the group consisting of CO, aromatic heterocycles, thioethers and isocyanides**.

35-36. (Cancelled)

37. (Currently Amended) The method of claim **34** **[[35]]**, wherein the aromatic heterocycles are selected from the group consisting of pyridine, pyrimidine, pyrazine, imidazole, pyrazole, triazole, tetrazole, thiazole, oxazole**[[,]]** **and** purine~~, and organic molecules having one of this group as an integral part~~.

38. (Previously Presented) The method of claim 37, wherein the purine is guanine or 9-methyl guanine.

39. (Currently Amended) The method of claim **34** **[[35]]**, wherein the thioethers are selected from the group consisting of linear substituted dialkyl thioethers, cyclic thioethers, **and** tetrahydrothiophen~~, and organic molecules containing a thioether functional group~~.

40. (Currently Amended) The method of claim **34** **[[35]]**, wherein the isocyanides are selected from the group consisting of ~~organic molecules comprising~~ **an alkyl chain comprising** a terminal NC group coupled **thereto and** ~~to an alkyl chain~~ optionally comprising a -COOH, NH2, -X, -SH, or -OH functional group**, wherein X is an anionic leaving group**.

41. (Currently Amended) The method of claim **34** **[[35]]**, wherein the bidentate ligand is an amino acid or dicarboxylate.

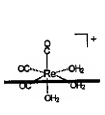
42. (Previously Presented) The method of claim 41, wherein the amino acid is an anionic amino acid.

43. (Previously Presented) The method of claim 41, wherein the amino acid is a non-natural α- or β-amino acid.

44. (Previously Presented) The method of claim 43, wherein the non-natural amino acid is N,N-dimethyl glycine.

45. (Previously Presented) The method of claim 34, wherein at least two of the ligands of the tricarbonyl complex shown in formula I are exchanged by guanine or guanosine after three days at 37°C with guanine or guanosine being present in a slight excess over rhenium or technetium.

46. (Currently Amended) The method of claim 34, wherein the compound is a compound selected from the group consisting of:



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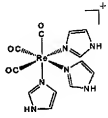

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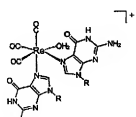

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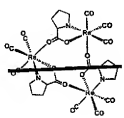

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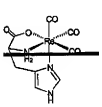

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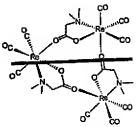

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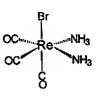

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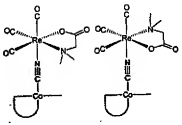

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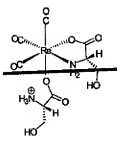

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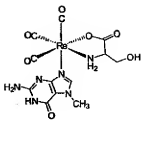
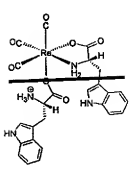


11 (L-Ser)
and 12 (D-Ser)



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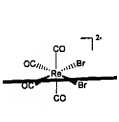

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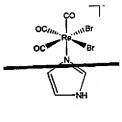

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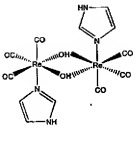

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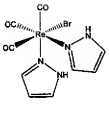

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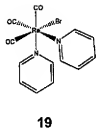

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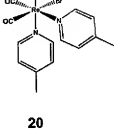

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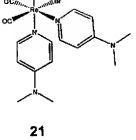

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and combinations thereof.

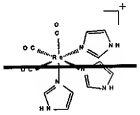
47. (Previously Presented) The method of claim 34, wherein X1 and/or X2 and/or X3 are coupled to a targeting moiety.

48. (Currently Amended) The method of claim 47, wherein the targeting moiety is selected from the group consisting of bombesin, neurotensin, somatostatin, glucosamine, nucleosides, nuclear localizing sequence peptides (NLS peptides), oligonucleotides, ~~nucleus targeting molecules such as~~ anthracyclines, and acridines ~~and other intercalators, and derivatives or analogues thereof~~.

49. (Previously Presented) The method of claim 34, wherein the metal tricarbonyl compound is chemotoxic.

50. (Previously Presented) The method of claim 34, wherein the metal tricarbonyl compound is a radiotherapeutic prodrug.

51. (Currently Amended) A compound selected from **the group consisting of**:



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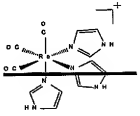

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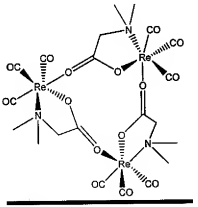

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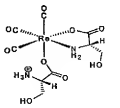

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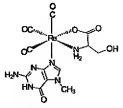
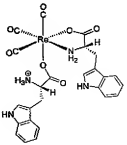


11 (L-Ser) and 12 (D-Ser)



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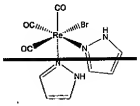

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52. (Previously Presented) The compound of claim 51 further coupled to a targeting moiety.

53. (Currently Amended) The compound of claim 52, wherein the targeting moiety is selected from the group consisting of bombesin, neurotensin, somatostatin, glucosamine, nucleosides, nuclear localizing sequence peptides (NLS peptides), oligonucleotides, ~~nucleus targeting molecules such as~~ anthracyclines, and acridines ~~and other intercalators, and derivatives and analogues thereof~~.